

What is claimed is:

1. A calibration signal transmitter comprising:
spreading means for spreading a calibration signal
using a signal-specific spreading code; and
5 transmitting means for transmitting the spread
calibration signal for each unit frame for a predetermined
time.

2. An intermittent calibration apparatus comprising:

10 receiving means for receiving a signal resulting from multiplexing the calibration signal sent by the calibration signal transmitter according to claim 1 with a communication signal spread using a signal-specific spreading code in a same frequency band;

15 extracting means for extracting said communication signal and said calibration signal from the received signal through despreading processing using said spreading code;

calibration means capable of executing calibration processing using the extracted calibration signal in parallel with a communication using the extracted communication signal; and

demodulating means for carrying out demodulation processing on the extracted communication signal using the result of said calibration processing.

3. An intermittent calibration apparatus comprising:

receiving means for receiving a signal resulting

from multiplexing a communication signal spread using a signal-specific spreading code and sent, and a calibration signal spread using a signal-specific spreading code and sent for each unit frame for a 5 predetermined time in a same frequency band;

extracting means for extracting said communication signal and said calibration signal from the received signal through despreading processing using said spreading code;

10 calibration means capable of executing calibration processing using the extracted calibration signal in parallel with a communication using the extracted communication signal; and

15 demodulating means for carrying out demodulation processing on the extracted communication signal using the result of said calibration processing.

4. The intermittent calibration apparatus according to claim 2, wherein said communication signal is subjected to interleave processing before being transmitted and 20 said demodulating means carries out deinterleave processing corresponding to said interleave processing on the demodulated signal obtained through said demodulation processing.

5. The intermittent calibration apparatus according 25 to claim 3, wherein said communication signal is subjected to interleave processing before being transmitted and said demodulating means carries out deinterleave processing corresponding to said interleave processing

on the demodulated signal obtained through said demodulation processing.

6. A base station apparatus equipped with the intermittent calibration apparatus according to claim 5 2.

7. A base station apparatus equipped with the intermittent calibration apparatus according to claim 3.

8. A communication terminal apparatus for carrying 10 out radio communications with the base station apparatus according to claim 6.

9. A communication terminal apparatus for carrying out radio communications with the base station apparatus according to claim 7.

15 10. A calibration method comprising:

a transmitting step of transmitting a calibration signal spread using a signal-specific spreading code for each unit frame for a predetermined time;

20 a receiving step of receiving a signal resulting from multiplexing the calibration signal sent with a communication signal spread using a signal-specific spreading code in a same frequency band;

25 an extracting step of extracting said communication signal and said calibration signal from the received signal through despreading processing using said spreading code;

a calibration step capable of executing calibration processing using the extracted calibration signal in

parallel with a communication using the extracted communication signal; and

a demodulating step of carrying out demodulation processing on the extracted communication signal using the result of said calibration processing.

11. The calibration method according to claim 10,
wherein said communication signal is subjected to
interleave processing before being transmitted and said
demodulating step further comprises a deinterleave step
10 of carrying out deinterleave processing corresponding
to said interleave processing on the demodulated signal
obtained through said demodulation processing.

1920. The first year of the new century was a year of great change in the life of the church.